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# **Why don't people do what's good for them? : an examination of the consumption value(s) which affect physical activity**

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## ***Abstract***

One of the 21<sup>st</sup> Century's major public health issues is physical inactivity. Therefore one of the greatest public policy challenges is to find new ways of conferring to an inactive population the health related benefits that arise from being physically active in a way that not only leads to knowledge acquisition, but which also leads to increased levels of participation in physical activity. Participation rates in physical activity across the UK have remained stubbornly static since the mid-1980s and retain a range of gender, age, social-economic and ethnic participation inequalities.

Research has indicated that, when compared to men, women are more likely to: lead sedentary lifestyles (Hausenblas and Symons-Downs, 2005), experience poor health (Bertakis et al., 2000), and feel more uncomfortable about their body image (Liechty et al., 2006), factors which impact on and/or result in lower participation levels, suggesting that social marketing campaigns to date have been largely ineffective. A central tenet of social marketing is to achieve a voluntary, not forced or coerced behaviour change by emphasising a value proposition that induces action from the consumer. Set in the context of publicly funded leisure facilities this paper offers empirical insights regarding the drivers, constraints and consumption values underpinning women's participation in physical activity. Our results suggest that value perceptions regarding the costs, benefits and enjoyment of exercise do not differ with gender. However, statistically significant differences exist between the genders regarding: the physical environment within which exercise occurs; the quality of service experience; and intrinsic factors such as social and altruistic value.

Insights gained from this research may be able to inform policymakers and leisure services providers regarding more effective methods of engaging 'hard-to-reach' groups, such as women. Specifically, our findings suggest that exercise adoption is likely to be increased with targeted social marketing campaigns which focus on emphasising the experiential aspects of consuming physical activity viewed from the perspective of value-in-use rather than from the traditional price-based perspective that tends to focus on the trade off of costs against benefits.

## ***Introduction***

The World Health Organisation (WHO, 2011) estimates that, on a global basis approximately 3.2 million people die each year as a result of physical inactivity, and that, in developed countries, physical inactivity is responsible for various proportions of 'disability-adjusted life years' including: 23% of cardiovascular disease for men and 22% for women; 16% of colon cancer for men and 17% for women; 15% of type II diabetes; 12% of stroke for men and 13% for women; and 11% of breast cancer (WHO 2001). Research by the UK government's Department for Health (DoH) has found that adults who are physically active have up to a 50% reduced risk of developing major chronic diseases such as coronary heart disease, obesity, diabetes and cancer and a 20-30% reduced risk of premature death (DoH, 2004). Further research (DoH, 2005) suggests that without clear action, by 2050 almost 60% of men, 50% of women and 25% of children will be classed as obese. Results from another study indicate that physical activity is associated with reduced risk of cancers in middle aged British men (Wannamethee, Shaper and Walker, 2001).

Research also suggests that physical activity has a role to play in preventing and treating mental illness as well as impacting upon the wellbeing of the population in general (Biddle, 2000). There is also evidence to suggest the positive role that sport and physical activity can have as a means of combating social exclusion as it can provide opportunities for friendship networks, and can reduce social isolation, and enhance community wellbeing (Driscoll and Wood, 1999).

In recent years the UK, Welsh and Scottish governments have published strategies aimed at maximising the link between physical activity and its wide-ranging benefits. However, the challenge they face is to develop ways of engaging a largely disconnected population with participation in physical activity to a level that can bring about these benefits. Indeed, Sport England anticipated that while new initiatives aimed at young people will bring about a physical activity culture change in children that will capture their interest and commitment to activity for life. However, initiatives that are designed to raise the levels of participation in the adult population are considered to be more challenging (Sport England, 2004).

### ***Levels of participation in physical activity***

Physical activity is described as any movement of the body which is produced by an individual's skeletal muscle (Casperson, Powell and Christenson, 1985) and results in energy expenditure above the resting state of the individual (Heinonen and Sipila, 2007). Physical activity is therefore viewed as a generic concept, while primarily comprising sport and exercise as the most obvious and mainstream route for a person to be active and physical (Hylton *et al.*, 2001). Casperson *et al.*'s (1985) definition of physical activity includes a range of actions and movement that can be linked to sport and formal exercise but also includes other activities where people can gain health and mental benefits, social networks and pleasure. Conversely, Hylton *et al.*'s (2001) definition of physical activity primarily focuses on sport and formal exercise. Exercise tends to be viewed as a subset of physical activity that has been structured, planned, is repetitive in nature (Casperson *et al.*, 1985) and which is primarily undertaken over an extended period of time to improve or maintain one or more components of physical fitness (Bouchard, Blair and Haskell, 2006).

When it comes to policy formation, although different types and amounts of physical activity are outlined for different outcomes, all tend to include recommendations based around three factors: Frequency; Duration; and Intensity. Many sources recommend that an adult should participate in thirty minutes of moderate-intensity physical activity in a seven day period (Heinonen and Sipila, 2007; Schechtman, Barzilai, Rost and Fisher, 1991; Whipple, Fetto, Welshimer and Drolet, 2006). The World Health Organisation outlines a variety of recommendations ranging from an hour a day of moderate to vigorous-intensity physical activity for individuals under the age of eighteen to either thirty minutes of moderate-intensity physical activity five days a week, or twenty minutes of vigorous-intensity physical activity three days per week combined with muscular strength training for adults and the elderly (WHO, 2009). The UK government's Department of Health (2004) recommend participation in between forty-five and sixty minutes a day of moderate-intensity activity to prevent obesity.

However, while individuals may be aware of these recommendations they may not be aware of, for example, what constitutes moderate-intensity physical activity, or the difference between that and vigorous-intensity physical intensity. Neither is it always clear to an individual which form of physical activity may best suit them in order to achieve different outcomes as a direct result of participating in physical activity. Indeed, a study by Behrens, Dinger, Heesch, and Sisson (2005) established that even with detailed, specific mass communicated guidelines, college students were still confused as to what was required from them in order to meet the physical activity recommendation.

### ***Gendered Participation***

Traditionally boys are more active than girls (Loucaides, Plotnikoff and Bercovitz, 2007), and throughout the UK adult males continue to participate more than females in some form of physical activity (Sport England, 2009; Sport Scotland, 2008; Sports Council for Wales, 2005). The disparity between male and female participation first becomes apparent during high school years (Dwyer, Allison, Goldenberg, Fein, Yoshida and Boutilier, 2006) with the gap between male and female participation growing wider as individuals get older (Fahey *et al.*, 2004; Sport England, 2009; Sport Scotland, 2006; Sports Council for Wales, 2005). Much of the research on women's participation in leisure activities, including physical activity, have been based-on the assumption that the participation gap between men and women is caused by the conflict between the want to participate and the various responsibilities and demands women experience (Henderson *et al.*, 1996). Research on women's participation in leisure activities would suggest that their position in society, their lack of access to resources, and societal expectations about their lives, roles and responsibilities reduce their freedom and constrain their leisure options (Green, Hebron & Woodward, 1990; Henderson, 1994).

Evidence would suggest that women are more likely to experience poor health than men (Bertakis, Azari, Helms, Callahan and Robbins, 2000). Studies have also identified that women have an increased risk of leading sedentary and low active lifestyles compared to men (Hausenblas and Symons-Downs, 2005). Moreover, females experience other unique periods in their lives that may restrict their ability to participate in physical activity, including pregnancy, menstruation and menopause (Hausenblas and Symons-Downs 2005). Studies have also found that women can feel uncomfortable about their body image and those who were nervous about exercising were less likely to participate in physical activity because they were embarrassed about how they looked (Liechty, Freeman and Zabriskie, 2006). However, Currie (2004) found that women who were actively involved in sport identified positive changes, felt better in themselves, less stressed, and could deal better with daily life pressures.

Specific gender issues that have received attention have been the 'ethic of care' (Henderson *et al.*; 1996) and a women's 'lack of sense of entitlement' (Henderson and Bialeschki, 1991). Research has indicated that women's caring behaviour is a major constraining factor on their leisure especially if they are also married, have children or have other caring responsibility such as elderly relatives (Henderson *et al.*; 1996), Harrington, Dawson and Bolla, 1992; Roger, 1997). Furthermore, as women internalise the ethic of care and direct attention to the well-being of others, research has indicated

that they do not develop a sense of their own needs or feel that they are entitled to leisure for themselves (Bedini and Guinan 1996; Henderson and Bialeschki, 1991). Whilst the ethic of care and lack of entitlement are strongest amongst mothers, Herridge, Shaw and Mannell (2003) indicated that college-age women gave up their own leisure time to please their male partners and Shaw, Caldwell and Kleiber (1996) reported that adolescent females are more inclined than male to report participating in activities to please others. However, evidence also exists to support that these constraints diminish with increasing age, as children grow-up and become more independent some of the entitlement to their own leisure-time is regained (Baileschki and Michener, 1994; Fitzgerald and Laidler 1995; Parry and Shaw 1999).

Whilst men's participation rates exceed that of women's, Shaw and Henderson (2005) note that very little research has been conducted using gender or masculinity as analytical concepts and further suggest that gender would appear to be an enabling factor for men. Messner (1998) indicated that some men are 'compelled' to participate in sports to reinforce a masculine image of themselves just as some women feel 'compelled' to participate in family based activities that compliment their 'ethic of care' responsibilities (Shaw, 1994) or to become physically active in order to lose weight in order to improve their body image. Furthermore, Messner and Sabo (1990) suggest that men who do not fit the traditional masculine image may not only encounter social disapproval but also face problems in their chosen leisure activities. There is little evidence from UK-wide surveys that participation inequalities have narrowed and the participation base widened despite public policy being focused on extending participation amongst a range of 'targeted social groups' (GHS, 2004). Indeed, headline figures also indicate that since 1987 overall participation rates across the UK have remained static.

### ***Social Marketing – Social Change***

Social marketing has become a powerful tool for positive social change, combining behavioural theory and social research with traditional marketing tools in order to invoke a voluntary behaviour change which benefits society at large. The advent of social marketing ideas can be traced back to Weibe (1951) who asked 'why can't you sell brotherhood like you sell soap?' based on his evaluation of four different social change campaigns, concluding that the more similarities each campaign had with commercial marketing, the more successful they were. The implications of Wiebe's (1951) conclusion were that non-commercial organisations might adapt marketing to challenges other than promoting goods and services. Andreasen (1994:110) proposed the following definition of social marketing as "the adaption of commercial marketing techniques to programmes designed to influence the voluntary behaviour of target audiences to improve their personal welfare and that of society of which they are part". This definition illustrates a number of social marketing's distinct features: Firstly that social marketing is not about forcing or coercing individuals but instead it is about a voluntary behaviour change; the second feature emphasises the principle of exchange - if a voluntary change in behaviour is to occur there must be a clear benefit to the person in order to motivate and sustain the behaviour; thirdly, commercial marketing techniques such as the marketing mix, segmentation, targeting and market research, need to be used to understand and reach the target audience; finally, what differentiates social marketing from commercial marketing is the

notion that the end goal is to improve individual and societal wellbeing as opposed to benefiting the organisation doing the social marketing.

Gordon and Caltabiano (2006) examined 22 studies developed using social marketing principles to assess if they were effective in increasing levels of physical activity, increasing knowledge regarding the benefits of physical activity and the attitudes towards physical activity. Overall 10 of the studies showed a positive effect, 8 showed mixed results and 4 showed no effect on overall outcomes. The interventions reviewed targeted a broad spectrum of populations such as young people, older people, low income groups, minority ethnic groups and people with lower levels of literacy. Almost all the studies (21 out of 22) targeted one or more behavioural outcome, most usually an increased level of physical activity based on frequency of activity or total time spent. Of the 21 interventions only eight reported a significant positive effect on behaviour, whilst another 7 studies reported mixed results. Despite some of the interventions showing only a moderate or no significant improvement in levels of physical activity, positive psychosocial outcomes were often reported. This suggests that although increased levels of physical activity can be difficult to achieve, interventions can be successful at changing attitudes and perception towards physical activity.

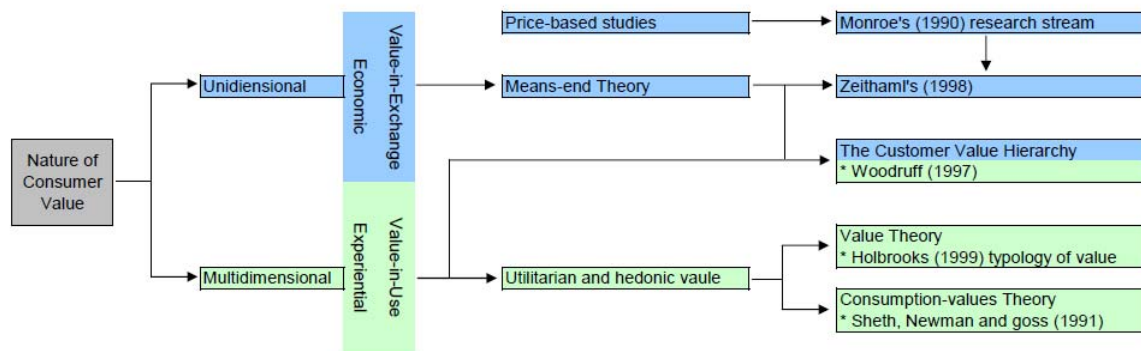
Of Andreasen's (2002) six benchmark criteria for social marketing, three seem to emerge as having the greatest influence upon supporting the adoption of health behaviours: Competition offers insights into the behavioural options that compete with and often prevent desired behaviour change from occurring - free choice, inertia and apathy are all significant competitive forces; exchange underpins an individual's perception of the value they will receive as a result of adopting certain behaviour - if a person is asked to exchange an old behaviour in favour of a new one of societies choosing the intervention needs to offer a value proposition that is perceived to be beneficial, an offering that is valued in use; and behaviour change which emphasises the need to initiate a voluntary behaviour by a particular target audience - the 'holy grail' for social marketers (Kaczynski, 2008:260).

### **Conceptualisation of Consumer Value**

We propose that some of the emerging paradigms in mainstream marketing may offer insights to aid social marketing effectiveness, particularly as it relates to a target audience's perception of the value they will receive as a result of adopting certain behaviours. If the value proposition favours societal over individual benefits, an individual may be less inclined to change behaviour due to low perceived personal benefit (Russell-Bennett, and Zainuddin, 2009). Two key approaches to the conceptualisation, research streams and theoretical models of customer value has emerged from the literature which can broadly be described as either uni-dimensional, also referred to as economic value or value-in-exchange and multi-dimensional approaches such as experimental value or value-in-use as illustrated in figure 1. Uni-dimensional constructs of value are most commonly expressed in terms of functionality and the perceived utility, benefits, quality and worth from the purchase, good or service and from the use of a product versus what was paid in terms of prices, cost and sacrifices. From a customer's perspective, Zeithaml (1988) considers value-in-exchange in terms of what the customer will 'get' out of the exchange relative to what they have to 'give-up'.

Value is therefore viewed as embedded in the product or service that is exchanged and can be quantified by what a customer is prepared to pay for it in terms of both financial and other types of costs (Ravald and Grönroos, 1996).

Figure 1: The Nature of Consumer Value



Source: Based on Sanchez & Iriarte (2007)

Multi-dimensional or experiential approaches attempt to explain value in the context of fulfilling customer's needs or wants by purchasing a product or by using a service. Holbrook (1994; 2006) expresses the perceptual nature of value which is uniquely experienced by individuals, contextual, and likely to change depending on the situation, product or individual. Woodruff and Gardial (1996: 7) believed that "customer value is not inherent in products or services themselves; rather it is expressed by customers as a consequence of using the suppliers products and services for their own purposes".

Of specific interest to the present study is Sanchez-Fernandez *et al.*, (2009:97) empirical adaption of Holbrook's (1999) typology, which the authors regard to be a more comprehensive approach to the value construct because it captured the "diverse aspects of the consumption experience, both cognitive and affective in nature – that is, the economic, social, hedonic and altruistic categories of consumer value". Their research was conducted in a service context (vegetarian restaurants) and indicated that the intrinsic elements of play, aesthetics and altruistic are more reflexive of consumer value in a service context than are extrinsic categories of efficiency, quality and social. Their findings suggest that by utilising an adaptation of Holbrook's (1999) typology, research undertaken in a service –orientated context could move beyond the rational or functional orientation based primarily on the quality-price trade-off and instead produce data that indicated the important of the emotional or hedonic aspects of value.

Traditional marketing perspectives inherited a goods-dominant logic (GD-logic) from economics which focused on transactions, tangible goods and embedded value. However new perspectives have begun to appear that have a different logic focused on relationships, intangible resources and consumer co-creation of value, one in which service provision rather than goods are fundamental to the notion of exchange. A service-dominant logic (SD-logic) is a service-centred alternative to the traditional goods-dominant paradigm for understanding economic exchanges and value creation.



From this perspective, value is not derived from what goes into producing goods and services, rather it is the consumer who creates value-in-use (Grönroos, 2006). Andreasen (2012) suggests that there is now a need to restructure the focus of social marketing as currently the field relies-on and predominantly applies traditional marketing techniques which are based on GD-logic where-as social marketing is best suited in the domain of service logic (Vargo and Lusch, 2004) where value is created 'in use' between two parties (i.e. consumer and organisation) and is not embedded and therefore 'exchanged' (Vargo and Lusch, 2008a).

## **Method**

A survey was undertaken of holders of Bridgend County Borough Council's 'Bridge Card' leisure services membership scheme, which as of 1<sup>st</sup> July 2011 had a total of 15,030 members across all categories. An appropriate sample size across a range of age and gender-based sub-groups was determined to generate a 95% confidence level according to Bartlett, Kotrlik and Higgins (2001), and, including the pilot sample, 1058 usable questionnaires were returned. Analysis of quantitative data was supplemented with qualitative insights from 20 in-depth interviews.

The Sport & Physical Activity Value (S&PAVAL) Model was used to provide the conceptual framework for data collection, both in term of the in-depth interviews and survey questionnaire, was based on Sanchez-Fernandez *et al.*'s, (2009) adaption of Holbrook's (1994) typology of consumer value. This model of consumer value was chosen because it both recognised and emphasised the notion of value as an experiential concept, which is clearly relevant to the understanding of participation in sport and physical activity. Sanchez-Fernandez *et al.*'s, (2009) six constructs identified for understanding value in a service setting were adapted to create the Sport & Physical Activity Value (S&PAVAL) Model to understand the experience of engaging and/or partaking in exercise or physical activity at a local authority Leisure Centre or Pool.

Churchill's (1979) scale development steps were followed with regard to developing and testing the S&PAVAL scale. For the measure of latent variables the scale used a seven-point Likert scale anchored from 'Strongly disagree' (1) to 'Strongly agree' (7), with 'don't know' as an eighth point. An initial set of measurement-scale items were based on previous consumer value literature and examples of other value measurement-scales items. The measurement of 'altruistic value' is not well defined in the literature and consequently few scales exist, therefore the statements were constructed from the researcher's industry knowledge.

An initial exploratory factor analysis suggested there were 8-consumption values underpinning adult's participation in sport and physical activity. Next the resulting 8-consumption values were examined more rigorously in order to validate the assumed dimensionality and to assess the scales psychometric properties in terms of convergent/discriminant validity (Hair *et al.*, 1988) and composite reliability (Fornell and Larcker, 1981). In this regard a subsequent CFA was undertaken on an eight factor measurement model consisting of 57 items which were estimated using MLE in Amos 20, furthermore, following Anderson and Gerbing (1990) all eight factors were allowed to covary. The final set of 50 items, organised by consumption values appears in Table 1.

Table 1: S&PAVAL Measurement: final scale and index reliability

Item		Standardised loading	Reliability (CR, AVE)
<u>Benefits of Exercise</u>			
EFB 5	Exercising improves my mental outlook	.859	CR= .937 AVE = .576
EFB 4	Exercising makes me feel good	.807	
EFB 7	Exercising has improved my body shape	.718	
EFB 3	Exercising boost my energy level	.786	
EFB 8	Exercising helps me to reach and maintain a healthy weight	.747	
EFB 6	Exercising help me to sleep better	.715	
EFB 9	I exercise to achieve a mind and body balance	.784	
EFB 2	Exercising helps me to reduce the risk of ill health	.696	
EFB 10	Exercising gives me a sense of achievement	.806	
EFB 15	I exercise to improve my everyday wellbeing	.720	
EFB 11	Exercising will help me achieve more independence in later life	.693	
<u>Physical Environment – surroundings</u>			
A13	The signage in the facility is large enough to be seen	.946	CR= .958 AVE = .820
A15	The signage in the facility makes it easy to find your way	.933	
A14	The signage in this facility is easy to be understood	.945	
A12	There is sufficient signage in the facility	.920	
A16	The decoration in the facility are appropriate	.772	
<u>Social Value</u>			
SV2	Exercising improves the way I am perceived by others	.962	CR= .932 AVE = .775
SV1	Exercising help me to feel socially acceptable	.903	
SV3	Exercising make a good impression on other people	.893	
SV6	Exercising gives me more social opportunities	.749	
<u>Costs of Exercise</u>			
EFC3	I am happy with the price of the Centre’s activities	.930	CR= .954 AVE = .775
EFC1	The Centre’s activities are reasonable priced	.894	
EFC5	The Centre offers good value for the price I pay	.914	
EFC4	The Centre makes me feel that I am getting my money’s worth	.926	
EFC2	The Centre offers good services for the price	.892	
EFC10	The benefits I receive from exercising are worth the money I have spent	.713	
<u>Quality Service Experience</u>			
QSE3	The staff are courteous, polite and respectful	.930	CR= .966 AVE = .804
QSE6	The staff make every effort to understand my needs	.921	
QSE5	The staff are trustworthy, believable and honest	.912	
QSE2	The staff are approachable and easy to contact	.907	
QSE4	The staff listen to me and we understand each other	.923	
QSE1	The staff are competent, knowledgeable and skilful employees	.882	
QSE7	The staff are neat, clean and presentable	.795	
<u>Altruistic Value</u>			
AV4	I want to be fit, active and health to avoid ill health	.843	CR= .897 AVE = .639
AV2	I want to be fit, active and healthy for myself	.908	
AV1	I consider being fit, active and healthy is important	.866	
AV3	I want to be fit, active and healthy for my family	.686	
AV6	I want to be fit, active and healthy to achieve more independence	.663	

in later life

#### Fun & Enjoyment

PE2	Exercising given me a sense of joy	.933	CR= .933
PE4	Exercising gives me happiness	.922	AVE = .702
PE3	Exercising make me fell delighted	.924	
PE1	Exercising gives me pleasure	.846	
PE5	I feel relaxed when I exercise	.752	
PE7	I enjoy trying new things when I exercise	.599	

#### Physical Environment – ambiance

A2	The air quality in the facility is good	.751	CR= .895
A1	The temperature in the facility is comfortable	.652	AVE = .589
A7	Overall, the ambient condition in the facility makes it comfortable to exercise in	.868	
A4	The smell in the facility is pleasant	.823	
A5	The lighting in the facility is adequate	.836	
A3	The background music/sound is appropriate	.645	

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$\chi^2 = 5160.27$ ,  $p < 0.000$ ,  $\chi^2 / df = 4.449$ ,  $GFI = .822$ ,  $CFI = .924$ ,  $RMSEA = .057$ ,  $HOELTER = 262$

## **Results**

### *Assessment of overall S&PAVAL model fit*

The initial S&PAVAL Model produced a poor to marginally acceptable model fit, not one that was adequate to lend sufficient empirical support for the measurement model as it was apparent that some modifications were required to produce a model that would better fit the data. Therefore, despite a number of criticisms from authors such as Cudeck and Browne (1983) it was decided to use the CFA in a post-hoc or exploratory manner (Byrne, 2001). The study used a number of diagnostics tools to help improve model fit, namely a review the standardised regression weights (item loading), the standardised residuals, modification indices (Hair *et al.*, 2006) and error terms. If the data indicated an item should be removed the study was mindful of Hair *et al.*, (2010) and others endorsement for the use of theory driven considerations when making changes to ensure that the model is defensible from a theoretically perspective, avoids capitalising on chance (Markland, 2007) and is able to be generalised to the wider population. In terms of fit the final S&PAVAL Model it returned:  $\chi^2 = 5160.27$ ,  $p < 0.000$ ,  $\chi^2 / df = 4.449$ ,  $GFI = .822$ ,  $CFI = .924$ ,  $RMSEA = .057$ ,  $HOELTER = 262$ . It is accepted that statistical analysis that are based on  $\chi^2$  are adversely affected by large sample sizes and should not be used in isolation (Byrne, 2001) and given the study's sample size  $n=1056$  it is not surprising that  $\chi^2 / df$  was larger than the generally accepted score of  $>3$  (Hair *et al.*, 2006) and should not be used as a criterion for rejecting an otherwise satisfactory model (Bagozzi and Yi, 1998; Lan *et al.*, 2004; Tam 2004).

### *Psychometric properties of the S&PAVAL Measurement Instrument*

Internal consistency estimates for the S&PAVAL measurement instrument appear in table 2. Scale composite reliability (SCR) and average variance extracted (AVE) were estimated (Fornell and Larcker, 1981) and were above the recommended levels (Bagozzi and Yi, 1988). The content validity of the S&PAVAL Scale was demonstrated through clearly defining the domain of the construct as a

result of a comprehensive theoretical & literature review. Furthermore, through the item-generation process this included seeking the opinions of an expert panel and undertaking a small scale pilot study and finally through the scale purification process guided by Churchill (1978) protocols. A comparison was undertaken between the average variance extracted (AVE) for each factor and the variance shared between the constructs which indicated that discriminant validity was satisfactory. Finally, all standardised factor loadings were greater than 0.5 which again supports convergent validity (Steenkamp and Trijp, 1991).

#### *Consumer Value as a second-order factor*

Our results, as shown in table 2, indicate a valid and significant reflective relationship between the consumption values underpinning adults' participation in sport and physical activity (all at  $p < 0.001$ ). Furthermore, the squared multiple correlation coefficients ( $R^2$ ), describing the amount of variance the common factor accounts for in the observed variables, were acceptable, especially given the novelty and complexity of some theoretical categories such as altruistic value, social value and play and emotional value.

Table 2 Goodness of fit of *Consumer Value as a second-order factor*

Dimension	Loadings (Y)	$R^2$
Physical environment – ambiance	0.77	0.56
Physical environment – surroundings	0.68	0.46
Altruistic Value	0.67	0.44
Benefits of Exercise	0.67	0.44
Quality Service Experience	0.62	0.39
Cost of Exercise	0.60	0.36
Play & Emotion	0.58	0.34
Social Value	0.50	0.25

$\chi^2 = 5160.27$ ,  $p < 0.000$ ,  $\chi^2/df = 4.449$ , GFI = .822, CFI = .924, RMSEA = .057, HOELTER = 262

#### *Gender Differences*

A series of oneway between groups ANOVA's were conducted to explore the impact of gender (male = 451, female = 607) on overall value perceptions relating to the 8-factors of the SPAVAL Model. Our results suggest that statistically significant differences exist between the genders regarding: the physical environment within which exercise occurs; the quality of service experience; and intrinsic factors such as altruistic value as indicated in table 3.

#### *Physical Environment – ambiance*

In terms of the overall value perceptions regarding the physical environment (ambiance) within which exercise activities occurred, there was a statistically significant difference in the mean scores for males which were higher than for females. At the item level indicated five significant differences where men placed a slightly higher importance on A1 'The temperature in the facility is comfortable', A2 'The air quality in the facility is good', A4 'The smell in the facility is pleasant', A5 'The lighting is adequate', A6 'The lighting in the facility is

*easy on the eye'* and finally A7 '*Overall, the ambient condition in the facility makes it comfortable to exercise in*'.

**Table 3: Gender based Consumption Values**

Factor	Item	Gender	Diff	Mean	Std D	Eta
Physical Environment - Ambiance	Overall	Yes	p = .000*	Male = 39.02 Female = 36.85	7.83 8.41	$\eta^2 = .018$
	A1	Yes	p = .000	Male = 5.33 Female = 4.86	1.615 1.727	$\eta^2 = .018$
	A2	Yes	p = .000	Male = 5.51 Female = 4.98	1.446 1.596	$\eta^2 = .028$
	A4	Yes	p = .000	Male = 5.56 Female = 5.19	1.387 1.456	$\eta^2 = .016$
	A5	Yes	p = .000*	Male = 5.92 Female = 5.58	1.149 1.264	$\eta^2 = .018$
	A7	Yes	p = .003	Male = 5.73 Female = 5.49	1.306 1.322	$\eta^2 = .009$
Physical Env - Surroundings	Overall	Yes	p = .040	Male = 28.27 Female = 27.48	6.10 6.17	$\eta^2 = .004$
	A12	Yes	p = .038	Male = 5.63 Female = 5.46	1.341 1.327	$\eta^2 = .004$
	A14	Yes	p = .003	Male = 5.82 Female = 5.59	1.202 1.263	$\eta^2 = .008$
Quality, Service Experience	Overall	Yes	p = .050*	Male = 50.47 Female = 49.57	6.83 8.19	$\eta^2 = .004$
	QSE1	Yes	p = .017	Male = 6.20 Female = 6.04	1.025 1.178	$\eta^2 = .005$
	QSE5	Yes	p = .008*	Male = 6.40 Female = 6.24	.908 1.096	$\eta^2 = .006$
	QSE7	Yes	p = .044*	Male = 6.45 Female = 6.33	1.071 2.014	$\eta^2 = .003$
Altruistic Value	Overall	Yes	p = .046*	Male = 31.84 Female = 31.30	3.88 4.85	$\eta^2 = .004$
	AV1	Yes	p = .003*	Male = 6.49 Female = 6.31	.860 1.050	$\eta^2 = .008$
	AV2	Yes	p = .002*	Male = 6.55 Female = 6.38	.725 1.023	$\eta^2 = .008$
	AV4	Yes	p = .028*	Male = 6.45 Female = 6.32	.872 1.036	$\eta^2 = .004$

\*Brown-Forsythe Asymptotically F distributed

#### *Physical Environment (surroundings)*

With regard to the overall value perceptions relating to the physical environment (surroundings) within which the exercise activities occurred there was a statistically significant difference in the mean scores for males being higher than for females. A closer examination at the item level indicated two significant differences where men placed a slightly higher importance on A12 '*There is sufficient signage in the facility*' and A14 '*The signage in this facility is easy to be understood*'.

### *Quality Service Experience*

In terms of the overall value perceptions regarding the Quality Service Experience, there was a statistically significant difference in the mean scores for males which was significantly higher than for females. At the item level indicated three significant differences where men placed a slightly higher importance on QSE1 *'The staff are competent, knowledgeable and skilful employees'*, QSE5 *'The staff are trustworthy, believable and honest'* and finally QSE7 *'The staff are neat, clean and presentable'*.

### *Altruistic Value*

With regard to overall Altruistic Value perceptions, there was a statistically significant difference in the mean scores for males which was higher than for females. At the item level indicated three significant differences where men placed a slightly higher importance on AV1 *'I consider being fit, active and healthy is important'*, AV2 *'I want to be fit, active and healthy for myself'* and finally AV4 *'I want to be fit, active and healthy to avoid ill-health'*.

Despite reaching statistical significance, the actual difference in the mean scores between males and females was extremely small the effect size, calculated using eta squared ranged from a low of 0.004 indicating that only 0.4% of the variances relating to this statement was explained by gender to high of 0.028 or 2.8% (Cohen, 1988). Whilst accepting the identified gender differences are statistically significant, caution must be noted regarding the practical differences given the low effect size. Our results also show that overall value perceptions regarding the costs, benefits, enjoyment of exercise and its impression on others did not differ with gender.

## ***Discussion and Implications***

In the commercial marketing sector there is a great deal of research and importance placed on consumer value and creation as it has emerged in recent times as a key factor in consumer's decision making and behaviour (Zeithmal, 1998; Sheth, Newman and Gross, 1991). The American Marketing Association's (AMA) have included the notion that marketing relates to the exchanging of offerings and that those involved should obtain 'value' into their definition of marketing. In a similar vein, Zainuddin et al., (2011) and Andreasen (2012) suggest that only by comprehending what the 'it' is that customers value from consuming a social product can that 'it' be included into the design and implementation of social marketing campaigns and therefore act as an enticement to motivate the individual (Zainuddin et al, 2011). Therefore, policymakers and leisure service providers need to understand their customers' perceptions of value and how it is created if they are to bring about a significant improvement in the number of adults who are physically active.

### *Theoretical implications*

Currently there is little research that considers value or value creation from within a sport and physical activity context or from the participant's perspective. Therefore one of the main purposes of this research was to determine the consumption values of 'active adults' and the moderating impact of gender. The current study indicates that in a sport and physical activity context 8-

consumption values have been identified which contributes to the existing knowledge on value in several ways. The results have illustrated the nature of consumer value in a sport and physical activity setting and extended our understanding beyond the functional or rational price-quality relationships by recognising the importance of the hedonic or experiential aspects of value. These findings are broadly consistent with other researchers who have identified that multiple value dimensions impact on both choice and purchase decisions in a number of different service-settings such as golf holidays (Petrick and Backman, 2002), cruising (Petrick, 2004), attending festivals (Lee, Patrick and Crompton, 2007), adventure tourism trips (Williams and Soutar, 2005), vegetarian dining (Sanchez-Fernandez *et al.*'s, (2009) and women's health care (Zainuddin *et al.*, 2011).

The study's 8-consumption values do not re-created Holbrook's original typology but are better viewed as an extension of Sanchez-Fernandez *et al.*'s, (2009) 'efficiency' and 'aesthetics' dimensions as indicated in table 4.

Table 4

Sanchez-Fernandez <i>et al.</i> , (2009) adaption of Holbrook's (1999) typology of consumer value	The Structure of Consumer Value in a Sport & Physical Activity Setting
Efficiency	Benefits of Exercise Costs of Exercise
Quality	Quality, Service Experience
Social Value	Social Value
Play	Play & Emotion
Aesthetics	Physical Environment – surroundings Physical Environment – ambiance
Altruistic Value	Altruistic Value

Sanchez-Fernandez *et al.*, (2009) considered efficiency to include the get-versus-give aspect of consumption and included monetary costs, time and effort related to the experience of using vegetarian restaurants. However, this study's results indicate that, in a sport and physical activity setting, the benefits of exercise such as improved physical and mental wellbeing offer a separate consumption value to the costs of exercising such as time, money and effort. Furthermore, this study's re-interpretation of 'aesthetics' in terms of the servicescape concept (Bitner, 1992) as the physical environment within which the physical activity occurred, would support Sanchez-Fernandez *et al.*'s, (2009) belief that 'aesthetics' is a key aspect of value in the consumption experience. In our study, two separate consumption values were identified, disaggregating this value into two components: Physical Environment – surroundings (e.g. physical elements such as signage and decor) and Physical Environment – ambiance (e.g. sensory elements such as temperature, light, smell, sound etc.).

Furthermore, the 8-consumption values identified by the current study represent the application of value dimensions originally developed by commercial marketers in a social marketing setting, suggesting that despite differing organisational objectives consumer behaviour in general and the nature of consumer value in particular may be similar. Zainuddin, Russell-Bennett and Previte (2008)

suggest that consumers of a social marketing intervention experience value at three stages of the consumption process, which in turn leads to outcomes of value in the form of satisfaction, behavioural intention and sustained behavioural change. At the pre-consumption stage consumers are still considering whether to use the social marketing service or intervention, or not. Zainuddin, Russell-Bennett and Previte (2008) suggest that they are likely to want high levels of both functional and emotional value at this stage, but by contrast will seek only moderate levels of both social and altruistic value. It is also likely at this stage that consumers may have negative feelings such as fear or anxiety, especially if they are unfamiliar with the service, making the need for emotional value particularly important. It is not anticipated that pleasing others (social value) or acting for the betterment of society (altruistic value) is as important as the fulfilment of the consumer's functional and emotional needs.

Zainuddin, Russell-Bennett and Previte (2008) suggest that at the consumption stage, consumers have made their decision to act primarily based on the premise that consuming the service would fulfil or satisfy their functional needs. Therefore, high levels of functional value will be experienced at this stage along with high levels of emotional value due to the need to overcome any residual negative emotions needed to reaffirm their decision to act. It is not anticipated that altruistic or social value is considered to be as important as functional or emotional value. Our findings suggest that physically active adults have high levels of aesthetic value expressed in terms of the physical environment (ambiance 0.77, surroundings 0.68) within which they participate, and they also experience relatively high levels of altruistic value (0.67) with regard to the benefits that arise from exercise (0.67). In contrast to Zainuddin, Russell-Bennett and Previte's (2008) findings, the role of altruistic-based motivation for engaging in physical activity was highly valued and the emotional aspects in terms of fun related elements appear to be of less importance. According to Zainuddin, Russell-Bennett and Previte (2008) once the service or intervention has been consumed and the experience completed the importance of functional value diminishes due to the customers functional needs having been fulfilled. However, if customers reflect on their decision and feel that they have performed a socially-responsible act, they may experience high levels of altruistic value. Social status or influence will not have much, if any, significance at this stage.

### *Managerial Implications*

Some clear recommendations for marketing practise have emerged from our findings based on understanding value from a multi-dimensional or experiential perspective. Grönroos (2008) believes that there is now a new paradigm shift from marketing being based on the concept of value-in-exchange to marketing being based on the concept of consumer value creation. It is also clear that defining and creating consumer value is subjective to the customer and the organisation cannot undertake this task on their own, there must a relationship, dialogue and interaction between the organisation and the customer, it is the customer who is the co-creator of value (Vargo and Lusch, 2008a). Therefore by applying marketing techniques and theories ground in traditional GD-logic will not create any value for the customer, as value is destroyed through the consumption of product, not created in consumption as in SD-logic (Vargo and Lusch, 2008b). Policy-makers and leisure providers providers can, therefore, use and interpret this study's findings as value outcomes to be used to identify new value creation opportunities. The consumption values identified should enable



them to refined activities that contribute to the value offering delivered to customers by understanding the different dimensions that generate consumer value before designing an appropriate offering.

In terms of the physical activity propositions or promise (Peattie and Peattie, 2003), all-too-often the offering is not clearly defined or explicitly expressed; policy-makers and leisure providers can now base their propositions on emphasising the experiences and outcomes which appear to be highly valued by active adults (table 2), such as the physical environment with-in which physical activity occurs, the benefits of exercise, the role of altruistic motivations in the decision to become physically active. The ways in which these categories reflect consumer value suggests the need for future propositions to given careful consideration to the participation servicescape in terms of ensuring the overall ambiance of the facility make it comfortable to exercise in (lighting, temperature, decoration, signage and background music), as well as emphasising the range of benefits that can be gained in the short-term (improved mental outlook, feeling good and improved body shape) and the implications for the longer-term avoidance of ill-health and the achievement of more independence in latter life. Marketers can then also develop more sophisticated positioning strategies based on the 'exchange of promises' such as the benefits of exercise and altruistic value and the provision of a supportive environment through the provision of a conducive servicescape (physical environment combined with a quality service experience) where these promises can be attained.

Furthermore, we suggest that improvements to service design need to be based on the co-creation of value through emotionally charged hedonically orientated aspects of service design which emphasises the relationship, dialogue and interaction between the organisation and the customer in terms of the quality of service experience and the fun-related elements of consuming physical activity. With regard to accessibility (Peattie and Peattie, 2003) the consumption values identified can be used to conduct more precise market-segmentation analysis as they are able to identify value-based differences among various customer groups (gender, age and social class) and to develop more effective target communications through an understanding of what messages adults will identify with in order to embrace encourage, and maintain a physically active lifestyle.

Finally, with regard to the costs associated with being physically active, commentators would suggest that it is rarely dependent upon or even requires a monetary exchange as is implied by the term price. Peattie and Peattie (2003) consider factors such as time, overcoming psychological barriers, effort and physical addiction (eg smoking) as more prevalent costs than money, furthermore Jackson (2005) suggested other factors such as body image concerns, limited transportation, and a lack of knowledge may be more significant and prohibiting costs than the price alone (Jackson, 2005). However, the study's results indicated that the costs associated with being physically active are financial ones, suggesting that an active adult adopts a value-in-exchange perspective in terms of how much they pay for what they get, in keeping with Grönroos' (2008) belief of a paradigm shift which conceives value-in-exchange as a function of value-in-use.

## **Conclusion**

The current study was driven by the limited research regarding the consumption values that underpin active adults' consumption of physical activity and an examination of any significant gender differences. Whilst accepting further work is required to refined both the S&PAVAL model and scale, following Woodruff (1997) call for deeper and more meaningful investigations into customer value theory, both elements provide an outcome framework from which to begin investigating the factors that either determine or influence dimensions of value in a sport and physical activity context.

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